

Bureau of Land Management

PLAN AMENDMENT/FINAL EIS

FOR THE

BLYTHE SOLAR POWER PROJECT

Volume 1 of 2



August 2010



EXECUTIVE SUMMARY

ES.1 Background and Organization

In August 2007, the United States Bureau of Land Management (BLM) California Desert District and the California Energy Commission (CEC) entered into a Memorandum of Understanding (MOU) to jointly develop the environmental analysis documentation for solar thermal projects which are under the jurisdiction of both agencies. Consistent with that MOU, the BLM and the CEC prepared a joint environmental compliance document to address the requirements of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) for the Blythe Solar Power Project (BCPP). Specifically, a Staff Assessment/Draft Environmental Impact Statement (SA/DEIS) was prepared and was circulated for agency and public review and comment between March 19, 2010, and June 17, 2010. The SA/DEIS is incorporated by reference in this Plan Amendment/Final Environmental Impact Statement (PA/FEIS).

The BLM and the CEC prepared separate final documents for compliance with NEPA and CEQA, respectively. Specifically, the BLM prepared this PA/FEIS for the BSPP. The SA/DEIS was the primary reference used in preparing this FEIS. The SA/DEIS is incorporated by reference in this FEIS. The comments received on the DEIS are addressed in this PA/FEIS. After the publication of this PA/FEIS, the BLM will prepare a Record of Decision (ROD) regarding the proposed action (Agency Preferred Alternative). The publication of the ROD in the Federal Register is the final step required of the BLM to meet the requirements of NEPA for the BSPP.

ES.2 Lead Agencies' Roles and Approvals

The BLM's authority for the proposed action includes the Federal Land Policy and Management Act (FLPMA) of 1976, Section 211 of the Energy Policy Act, and BLM's Solar Energy Development Policy. The FLPMA authorizes the BLM to issue right-of-way (ROW) grants for renewable energy projects. BLM's authority also extends to the BLM lands in the Palm Springs/South Coast Field Office, which are governed by the California Desert Conservation Area Plan (1980, as amended) (CDCA Plan). Because the CDCA Plan would need to be amended to allow the BSPP on the proposed site, BLM would also oversee that CDCA Plan amendment process for the project.

The CEC has the exclusive authority to certify the construction, modification, and operation of thermal electric power plants in California which generate 50 or more MW. The CEC certification is in lieu of any permit required by State, regional, or local agencies. The CEC must review power

plant Applications for Certification (AFCs) to assess potential environmental impacts and compliance with applicable laws, ordinances, regulations, and standards (LORS). The CEC analyses regarding the BSPP in the SA/DEIS were prepared in accordance with the requirements of CEQA.

ES.3 Purpose and Need

BLM Purpose and Need

NEPA guidance published by the Council on Environmental Quality (CEQ) states that environmental impact statements' Purpose and Need section "shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action" (40 CFR 1502.13). The following discussion sets forth the purpose of and need for the action as required under NEPA.

The BLM's purpose and need for the BSPP is to respond to the application of Palo Verde Solar I¹ (Applicant) under Title V of the Federal Land Policy and Management Act of 1976 (FLPMA) (43 U.S.C. 1701 et seq.) for a ROW grant to construct, operate, maintain and decommission a solar thermal facility on public lands in compliance with FLPMA, BLM ROW regulations, and other applicable Federal laws. The BLM will decide whether to approve, approve with modification, or deny issuance of a ROW grant to Palo Verde Solar I for the proposed BSPP. The BLM's action also will include consideration of a concurrent amendment of the California Desert Conservation Area (CDCA) Plan of 1980, as amended. The CDCA Plan, while recognizing the potential compatibility of solar generation facilities on public lands, requires that all sites associated with power generation or transmission that are not identified in the CDCA Plan to be added to it through the land use plan amendment process. CDCA boundaries are shown on Figure 1. The BSPP site is within the CDCA, but is not identified in the CDCA Plan for solar power generation. Therefore, if the BLM decides to approve the issuance of a ROW grant, the CDCA Plan amendment also would be required.

In conjunction with FLPMA, BLM authorities include:

1. Executive Order 13212, dated May 18, 2001, which mandates that agencies act expediently and in a manner consistent with applicable laws to increase the "production and transmission of energy in a safe and environmentally sound manner."
2. The Energy Policy Act of 2005 (EPAct 05 or EPAct), Section 211 of which states: "It is the sense of the Congress that the Secretary of the Interior should, before the end of the 10-year period beginning on the date of enactment of this Act, seek to have approved non-hydropower renewable energy projects located on public lands with a generation capacity of at least 10,000 megawatts of electricity."

¹ Chevron Energy Solutions and Solar Millennium have a joint development agreement. Chevron Energy Solutions applied for the Right of Way for Blythe Solar Power Project. To facilitate the permitting of the Blythe Solar Power Project (BSPP), the Applicant is requesting that the BLM issue one right of way grant to a Project- specific company. The company for BSPP is Palo Verde Solar I, LLC a wholly owned subsidiary of Solar Millennium and the single Applicant for the BSPP.

3. Secretarial Order 3285, dated March 11, 2009, which “establishes the development of renewable energy as a priority for the Department of the Interior.”

Department of Energy Purpose and Need

The Applicant has applied to the Department of Energy (DOE) for a loan guarantee under Title XVII of the Energy Policy Act of 2005 (EPAct 05), as amended by Section 406 of the American Recovery and Reinvestment Act of 2009, P.L. 111-5 (the “Recovery Act”) for Solar Power Units 1 and 2 of the BSPP. DOE is a cooperating agency on this EIS pursuant to an MOU between DOE and BLM signed in January 2010. The purpose and need for action by DOE is to comply with its mandate under EPAct by selecting eligible projects that meet the goals of the Act.

EPAct 2005 established a Federal loan guarantee program for eligible energy projects, and was amended by the Recovery Act to create Section 1705 authorizing a new program for rapid deployment of renewable energy projects and related manufacturing facilities, electric power transmission projects, and leading edge biofuels projects. The primary purposes of the Recovery Act are job preservation and creation, infrastructure investment, energy efficiency and science, assistance to the unemployed, and State and local fiscal stabilization. The Section 1705 Program is designed to address the current economic conditions of the nation, in part, through renewable energy, transmission and leading edge biofuels projects.

Energy Commission Project Objectives

The CEQA guidelines require a clearly written statement of objectives to guide the lead agency in developing a reasonable range of alternatives and aid decision-makers in preparing findings or a statement of overriding considerations. CEQA specifies that the statement of objectives should include the underlying purpose of the project (Section 15126.6(a)). After considering the objectives set out by the applicant, the Energy Commission identified the following basic project objectives, which are used to evaluate the viability of alternatives in accordance with CEQA:

1. To construct a utility-scale solar energy project of up to 1,000 MW and interconnect directly to the CAISO Grid while minimizing additions to electrical infrastructure; and
2. To locate the facility in areas of high solar insolation.
3. In addition, when considering retention or elimination of alternative renewable technologies, in addition to evaluating the likelihood of reducing or eliminating the potential impacts of Blythe Solar Power Project at its proposed site, staff evaluated whether alternative technologies could meet the following key project objectives:
4. To provide clean, renewable electricity and to assist Southern California Edison (SCE) in meeting its obligations under California’s Renewable Portfolio Standard Program (RPS);
5. To assist SCE in reducing its greenhouse gas emissions as required by the California Global Warming Solutions Act; and
6. To contribute to the achievement of the 33% renewables RPS target set by California’s governor and legislature

7. To complete the review process in a timeframe that would allow the applicant to start construction or meet the economic performance guidelines by December 31, 2010 to potentially qualify for the 2009 ARRA cash grant in lieu of tax credits for certain renewable energy projects.

ES.4 Proposed Action and Plan Amendment

The BSPP is a privately-proposed solar power generating facility and bundled double circuit 230 kV power transmission line (gen-tie) that would be located on Federal land managed by the BLM in the California inland desert, approximately eight miles west of the city of Blythe and three miles north of the Interstate-10 freeway (see, Figure 1). The Applicant is seeking a right-of-way (ROW) grant for approximately 9,400 acres. Construction and operation of the BSPP would disturb a total of about 7,025 acres. Remaining acreage that would not be disturbed may not be part of the ROW grant.

The BSPP would include the construction and operation of four adjacent, independent, identical power block units (Units) of 250 MW nominal capacity each for a total nominal capacity of 1,000 MW commercial solar parabolic trough generating station and ancillary facilities (see Figures 2a and 2b). The BSPP would be constructed in four phases. The first two phases, BSPP Units 1 and 2, are designed to provide a combined total of approximately 500 MW of electricity and would occupy an estimated 1600 acres each; the third and fourth phases, BSPP Units 3 and 4, would provide a combined total of approximately 500 MW of electricity and occupy an estimated 1200 acres each (see Figure 3 for a solar unit detail). The BSPP would be connected to Southern California Edison's planned Colorado River Substation, which would be located approximately five miles southwest of the BSPP area, via the proposed gen-tie line, a bundled double circuit 230 kV transmission line.

The Applicant did not request a CDCA Plan amendment directly. Nonetheless, the BLM has determined that a CDCA Plan amendment would be required if a ROW were granted for a solar power generating facility on the proposed site. Regardless of whether the proposed project is approved, the BLM could elect to amend the CDCA Plan. Consequently, the following range of outcomes of the BLM's potential CDCA Plan amendment process is as follows:

PA1 – The CDCA Plan (1980, as amended) would be amended to identify the footprint of the BSPP site as suitable for the proposed type of solar energy development. (This is the proposed land use plan amendment.)

PA2 – The CDCA Plan (1980, as amended) would not be amended. (This is No Action Alternative A, discussed below.)

PA3 – The CDCA Plan (1980, as amended) would be amended to identify the BSPP application area as unsuitable for any type of solar energy development. (This is a no project alternative called “No Action Alternative B” and is discussed below.)

PA4 – The CDCA Plan (1980, as amended) would be amended to identify the BSPP application area as suitable for any type of solar energy development. (This is a no project alternative called “No Action Alternative C” and is discussed below.)

ES.5 Connected/Cumulative Actions

Telecommunications and Telemetry

The BSPP would have telecommunications service from Frontier Communications, the telecommunications service providers for the Blythe area. Voice and data communications would be provided by a new twisted pair telecommunications cable. The routing for this cable would follow the routing of the redundant telecommunications line from the project to at the Colorado River Substation. The routing for each of these lines would be adjacent to the Black Rock Road, and the site access road. Wireless telecom equipment would be used to support communication with staff dispersed throughout the site. The BSPP would utilize electronic telemetry systems to control equipment and facilities operations over the site.

Natural Gas Pipeline

A new four-inch diameter, 9.8-mile long natural gas pipeline would be constructed to connect the project to an existing Southern California Gas (SCG) pipeline situated south of I-10.

Approximately eight miles would be within the plant site boundary and two miles outside the plant site boundary. The line would be buried with a minimum three feet of cover depending on location. The gas line route would begin at an existing SCG line 1,800 feet south of I-10 and traverse directly north to the site where it would provide fuel for operating the HTF system.

Construction of the gas pipeline would be built to SCG standards and would take approximately three to six months. Most major pieces of pipeline construction equipment would remain along the pipeline ROW during construction with storage and staging of equipment and supplies located at the site or other acceptable site selected by SCG at the time construction is underway.

Excavated earth material would be stored within the construction ROW.

Distribution Line

Construction power would be provided to the site from the SCE 12.47 kV distribution line routed to the site from SCE's distribution poles one mile east of BSPP at the corner of Sixth Avenue and Davis Street.² The BSPP would include construction of a 12.47 kV internal distribution system and step down transformers to provide power as needed for construction operations.³

Cumulative Scenario

There are a large number of renewable energy and other projects proposed throughout the California desert that were identified as potentially contributing to cumulative environmental impacts. Those cumulative projects are discussed in detail in Section 4.1.4, Cumulative Scenario Approach.

² The distribution line would be wholly owned and operated by SCE. It would be used to provide power during the construction phase of the proposed action. SCE would retain the facility after construction is complete.

³ During the operational phase of the proposed action, power would be provided by the BSPP.

ES.6 Alternatives to the Proposed Action

Table ES-1 summarizes the BSPP, the Agency Preferred Alternative, the other Alternatives evaluated in this PA/FEIS. The BSPP is the originally proposed action. All of these Alternatives are described in detail in Chapter 2, Proposed Action and Alternatives.

**TABLE ES-1
SUMMARY OF ALTERNATIVES EVALUATED IN THE PA/FEIS**

Alternative	Comments
Proposed Action 1,000 MW; 7,025 acres disturbed BLM amends CDCA Plan for BSPP	This is the BSPP and was the original proposed action; it also is the Agency Preferred Alternative.
Reconfigured Alternative 1,000 MW (same as BSPP) 7,175 acres disturbed (150 acres more than the BSPP) BLM amends CDCA Plan for Reconfigured Alternative	This is a reconfigured project that would use the same technology as the BSPP to generate the same energy output, but would relocate Unit 3 to a location approximately 0.8 mile south of Solar Unit 2 to reduce impacts related to a major unnamed dry wash that flows through the proposed site along the southwestern side.
Reduced Acreage Alternative 750 MW (75 percent of MW of the BSPP); 4,750 acres disturbed (1,200 acres less than the BSPP) BLM amends CDCA Plan for Reduced Acreage Alternative	This is a reduced project that would develop only three of the four units proposed under the BSPP. The same solar trough technology would be used as for the BSPP.
No Action Alternative A: BLM does not approve the ROW Grant for the BSPP BLM does not amend the CDCA Plan	This No Action Alternative was evaluated in the SA/DEIS under both CEQA and NEPA.
No Action Alternative B BLM does not authorize the ROW grant for the BSPP; BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development.	<p>This No Action Alternative was evaluated in the SA/DEIS under NEPA only.</p> <p>This is not a typical “No Action” Alternative because the BLM would take action to amend the CDCA Plan under this Alternative. However, it was evaluated because it provided an opportunity for the BLM to consider the effects of not approving the ROW grant application and also amending the CDCA Plan to make the specific BSPP site unavailable for future solar development.</p>
No Action Alternative C BLM does not authorize the ROW grant for the BSPP; BLM amends the CDCA Plan to make the project site available for any type of solar energy development.	<p>This No Action Alternative was evaluated in the SA/DEIS under NEPA only.</p> <p>This is not a typical “No Action” Alternative because the BLM would take action to amend the CDCA Plan under this Alternative. However, it was evaluated because it provided an opportunity for the BLM to consider the effects of not approving the ROW grant application and also amending the CDCA Plan to make the specific BSPP site available for future solar development.</p>

ES.7 Affected Environment

The BSPP would be located on public land managed by the BLM approximately three miles north of the I-10 freeway, and eight miles west of the City of Blythe, California. The proposed action includes a 230-kilovolt (kV) transmission line that would interconnect with the regional grid at Southern California Edison's (SCE) planned Colorado River Substation about five miles southwest of the plant site. The Applicant has applied for a right-of-way (ROW) grant from BLM for approximately 9,400-acres of flat desert terrain. Within these 9,400 acres, construction and operation would disturb approximately 7,025 acres. Remaining acreage that would not be disturbed would not be part of the ROW grant.

The site is located within the within the Palo Verde Mesa of the Sonoran Desert region of southeastern California, an alluvial-filled basin that is bounded by the Mojave Desert to the north and by the McCoy Mountains, Little Maria Mountains, and Big Maria Mountains to the west, northwest, and northeast, respectively, extending southwest to the Palo Verde Mountains. The Palo Verde Mesa is bounded by the Palo Verde Valley to the east, which is generally formed by flood plain deposits of the Colorado River. The unique position of the region at the junction with the Neotropic ecozone to the south contributes to the presence of a number of rare and endemic plants and vegetation communities specially adapted to this bi-modal rainfall pattern, and not found elsewhere in California. These include microphyll woodlands, palm oases, and a number of summer annuals that only germinate after a significant warm summer rain. Although the region supports numerous perennial species, including a wide variety of cacti, more than half of the region's plant species are herbaceous annuals, which reveal themselves only during years of suitable precipitation and temperature conditions.

The project site contains a variety of vegetation types including Sonoran creosote bush scrub, desert saltbush scrub, arrowweed scrub, tamarisk scrub, agricultural areas, disturbed areas, developed areas, ornamental areas, and open channel areas. Several ephemeral desert washes traverse the project site and convey flows during and following a substantial rainfall. The vegetation community in the washes is classified as Sonoran creosote bush scrub and also contains sparse stands of mesquite and tamarisk. The ephemeral washes generally contain a greater vegetative diversity and density than the creosote bush scrub habitat outside the washes. A variety of wildlife occupies the habitats on and in the vicinity of the project site.

ES.8 Environmental Consequences

Table ES-2 summarizes the environmental impacts that would occur as a result of the BSPP, the Agency Preferred Alternative, and Alternatives by environmental parameter. (Tables ES-3 through ES-22 are provided following the last page of text in this Executive Summary.) The tables also identify the mitigation measures, project features, and other measures included in the Alternatives to avoid or substantially reduce the adverse impacts of those Alternatives. The unavoidable adverse impacts that would remain after mitigation are also summarized briefly in these tables.

**TABLE ES-2
SUMMARY OF IMPACTS BY ALTERNATIVE**

Resource	ALTERNATIVES					
	Proposed Action	Reconfigured Alternative	Reduced Alternative	No Action Alternative A	No Action Alternative B	No Action Alternative C
Air	<ul style="list-style-type: none"> <i>Construction:</i> NOx=102 tons/yr; VOC=12 tons/yr; CO=58 tons/yr; PM10=103 tons/yr; PM2.5=21 tons/yr; and Sox=0.2 tons/yr <i>Operations:</i> NOx= 7 tons/yr; VOC=36 tons/yr; CO=16 tons/yr; PM10=76 tons/yr; PM2.5=10; tons/yr; and Sox=0.1 tons/yr <i>Decommissioning:</i> Comparable in type and magnitude, but likely to be lower than, the construction emissions 	Similar to the Proposed Action	Approximately 25% less than the Proposed Action	No Impact	No Impact	Similar to the Proposed Action
Global Climate Change	<ul style="list-style-type: none"> <i>Construction:</i> GHG: 103,900 CO₂-Equivalent and loss in carbon uptake of about 8,806 MT of CO₂ per year due to vegetation removal <i>Operations:</i> 14,789 CO₂-Equivalent <i>Decommissioning:</i> Comparable in type and magnitude, but likely to be lower than, the construction emissions 	Similar to the Proposed Action	Approximately 25% less than the Proposed Action	No Impact	No Impact	Similar to the Proposed Action
Cultural	<ul style="list-style-type: none"> 210 known sites (30 prehistoric and 180 historic) Possibly additional resources yet to be discovered during construction The integrity of setting and integrity of feeling of the two known built-environment resources located within this area 			No Impact	No Impact	Similar to the Proposed Action
Environ-mental Justice	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Lands and Realty	<ul style="list-style-type: none"> Minimal and mitigable impacts to designated corridors and Interstate 10 from overhead gen-tie power line and underground pipeline crossing. No impacts to existing uses. 	Similar to the Proposed Action	Similar to the Proposed Action	Likely delayed impact similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.	No impact, or impact specific to a future use other than solar energy generation.	Similar to the Proposed Action. Required acreage could be less, approximately the same, or more than the Proposed Action.
Livestock Grazing	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action

TABLE ES-2 (Continued)
SUMMARY OF IMPACTS BY ALTERNATIVE

Resource	ALTERNATIVES					
	Proposed Action	Reconfigured Alternative	Reduced Alternative	No Action Alternative A	No Action Alternative B	No Action Alternative C
Minerals	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Multiple Use Classes	<ul style="list-style-type: none"> • <i>Construction</i>: 5,952 acres affected. • <i>Operations</i>: restriction of multiple use opportunities on the site to a single dominant use. 	Impacts to MUC-L lands same as Proposed Action; construction would impact 6,102 acres.	Impacts to MUC-L lands same as Proposed Action; construction would impact 4,752 acres.	No Impact; similar impacts if other utility-scale solar power facilities built in future.	No Impact.	Same as Proposed Action.
Noise	<ul style="list-style-type: none"> • <i>Construction</i>: short-term elevated noise levels would occur associated with high pressure steam blow. • <i>Operations</i>: Long-term operational noise levels would be approximately 40 dBA Leq at the nearest sensitive receptor. 	Similar to the Proposed Action	Slightly less than the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action
Paleontological	<ul style="list-style-type: none"> • <i>Construction</i>: Damage and/or destruction of paleontological resources; possible net gain to the science of paleontology depending on fossils found. • <i>Operations</i>: No Impact. • <i>Decommissioning</i>: No Impact. 	Same as Proposed Action	Similar but reduced proportionate to size of alternative	No negative impact or potential benefits to science of paleontology. Long term impacts likely similar to Proposed Action.	No negative impact or potential benefits to science of paleontology. Impacts similar to the Proposed Action likely to occur in other locations.	Similar to the Proposed Action
Public Health & Safety	<ul style="list-style-type: none"> • <i>Construction</i>: Risks to public health and contamination associated with construction equipment; safety risk of encountering unexploded munitions; risks of encountering abandoned mined lands. • <i>Operations</i>: large quantities of natural gas and Therminol VP1 would be used; no short- or long-term adverse human health effects are expected; risks of encountering abandoned mined lands; transmission line safety and nuisance hazards; traffic and transportation safety, including aviation safety; impacts to public and private airfields; and worker safety and fire protection impacts; and impacts associated with geologic hazards. 	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action	Similar to the Proposed Action

TABLE ES-2 (Continued)
SUMMARY OF IMPACTS BY ALTERNATIVE

Resource	ALTERNATIVES					
	Proposed Action	Reconfigured Alternative	Reduced Alternative	No Action Alternative A	No Action Alternative B	No Action Alternative C
Recreation	<ul style="list-style-type: none"> • <i>Construction</i>: impacts from noise, fugitive dust, and truck and other vehicle ingress and egress to the construction site. • <i>Operations</i>: site not available for recreational use; minimal impacts to other lands in the vicinity of the proposed site due to increased usage. • <i>Decommissioning</i>: dust and noise impacts similar to construction; after decommissioning area would be reclaimed for recreational use. 	<p>Would disturb approximately 150 more acres than Proposed Action.</p> <p>Operation, maintenance, and closure similar to Proposed Action.</p>	Similar but reduced proportionate to size of alternative.	Similar to the Proposed Action.	Potential impacts could range from no impact to greater impact, depending on future site use.	Similar but reduced/increased proportionate to size of future development.
Social & Economics	<ul style="list-style-type: none"> • <i>Construction</i>: Employment of 604 workers (average) and 1,004 workers (peak). Most, if not all, expected to live within two hours of site. • Any temporary lodging demand met by existing housing or lodging. No new housing or motel development induced. • Total direct construction spending benefits of \$406 million on labor and \$60 million on materials. • Additional total indirect and induced spending benefits of \$330 million and 462 jobs. • <i>Operations</i>: Annual employment of 221 workers of which at least 75% expected to live within two hours of site. • Any in-migration housing demand met by existing housing. No new housing growth induced. • Annual direct spending benefits of \$9.4 million on labor and \$9.6 million on materials. • Additional total indirect and induced spending benefits of \$9.2 million and 74 jobs. • <i>Decommission</i>: Temporary spending and employment benefit from deconstruction and site restoration work. Subsequent long term adverse impact from lost project jobs and spending. 	Same as Proposed Action	Similar but reduced proportionate to size of alternative	Similar to the Proposed Action	No Impact	Similar to the Proposed Action

TABLE ES-2 (Continued)
SUMMARY OF IMPACTS BY ALTERNATIVE

Resource	ALTERNATIVES					
	Proposed Action	Reconfigured Alternative	Reduced Alternative	No Action Alternative A	No Action Alternative B	No Action Alternative C
Soils	<ul style="list-style-type: none"> • <i>Construction</i>: total earth movement of approximately 8.3 million cubic yards. • Wind erosion generated soil loss of 71 tons per acre per year (Gunsight Series), 81 tons per acre per year (Cipriano Series), and 553 tons per acre per year (Aco Series). • Water erosion generated soil loss of 0.92 tons per acre per year (Gunsight Series), 4.63 tons per acre per year (Cipriano Series), and 0.51 tons per acre per year (Aco Series). • <i>Operations</i>: Wind erosion generated soil loss of 38 tons per acre per year (Gunsight Series), 49 tons per acre per year (Cipriano Series), and 296 tons per acre per year (Aco Series). • Water erosion generated soil loss of 0.84 tons per acre per year (Gunsight Series), 1.46 tons per acre per year (Cipriano Series), and 0.23 tons per acre per year (Aco Series). 	Similar to Proposed Action	<p>Peak construction: same as Proposed Action.</p> <p>Long term construction: less than Proposed Action.</p> <p>Operation: less than Proposed Action.</p>	No impact; potential for similar impacts in other locations.	No impact; potential for similar impacts in other locations.	Similar to Proposed Action
Special Designations	No Impact	No Impact	No Impact	No Impact	No Impact	No Impact
Transportation and Public Access – Off Highway Vehicle Resources	<ul style="list-style-type: none"> • <i>Construction</i>: temporary disturbance to motorized vehicles on local routes; traffic hazards from construction worker commuting and parking; increased traffic from construction activities; damage to roadways • <i>Operations</i>: increased opportunities for vandalism, illegal cross-county use and other disruptive behavior from off-highway vehicles (OHV); closure of the McCoy Wash to OHV users. • No impact to overall access for wilderness recreation; some impact to sightseeing and day use touring by OHV users; loss of access to site for two private land owners. 	Similar to Proposed Action; closure of one additional spur road, and impacts to an additional 8.5 miles of open routes.	Similar to Proposed Action; no impacts to two spur roads and impacts to OHV open routes decreased to approximately one mile.	No impact to OHV routes and values; similar impacts to transportation.	No impact to OHV routes and values; similar impacts to transportation.	Similar impacts as Proposed Action.

TABLE ES-2 (Continued)
SUMMARY OF IMPACTS BY ALTERNATIVE

Resource	ALTERNATIVES					
	Proposed Action	Reconfigured Alternative	Reduced Alternative	No Action Alternative A	No Action Alternative B	No Action Alternative C
Vegetation	<ul style="list-style-type: none"> <i>Construction:</i> 7,025 acres vegetation communities lost; 592 acres ephemeral drainages lost; 6 special status plant species impacted 	<i>Construction:</i> 5,548 acres vegetation communities lost; 413 acres ephemeral drainages lost; 4 special status plant species impacted	<i>Construction:</i> 4,165 acres vegetation communities lost; 245 acres ephemeral drainages lost; 1-4 special status plant species impacted	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action
Visual	<ul style="list-style-type: none"> <i>Construction:</i> Mitigable short-term impacts from construction lighting and visible dust plumes; adverse effects from large-scale visual disturbance in the landscape. <i>Operations:</i> Adverse and unavoidable impacts from glint and glare, and visual disturbance for dispersed recreational viewers in surrounding mountains. <i>Decommissioning:</i> Mitigable short-term impacts prior to successful restoration. 	Similar to the Proposed Action, but reconfigured alternative would slightly increase the field of view occupied by the BSPP from several KOPs.	Similar to the Proposed Action; the visual contrast remains the same for ground-level KOPs, but would be slightly reduced from elevated viewpoints.	No Impact	No Impact	Future solar energy development could be expected to affect visual resources to the same degree and extent as referenced in the Proposed Action.
Water	<ul style="list-style-type: none"> <i>Construction and Operation:</i> Pumping/Consumption of 22,100 ac-ft of groundwater, a fraction of which would be indirectly drawn from the Colorado River via aquifer seepage. Mitigable alteration of stormwater flows and drainage, including re-routing of existing flowpaths Mitigable water quality effects including use of heavy machinery and sedimentation during construction, and use of septic system, evaporation ponds, and spill cleanup facilities during operation. <i>Decommissioning:</i> Mitigable water quality effects due to use of heavy machinery and re-grading of site to match adjacent topography. 	Similar to the Proposed Action	Approximately 25% less than Proposed Action for groundwater consumption, similar to the Proposed Action for all others.	No Impact	No Impact	Similar to the Proposed Action

TABLE ES-2 (Continued)
SUMMARY OF IMPACTS BY ALTERNATIVE

Resource	ALTERNATIVES					
	Proposed Action	Reconfigured Alternative	Reduced Alternative	No Action Alternative A	No Action Alternative B	No Action Alternative C
Wild Horse & Burros	No Impact	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action	Same as Proposed Action
Wildland Fire Ecology	<ul style="list-style-type: none"> <i>Construction</i>: Slight increase in threat of wildland fires in area <i>Operations</i>: threat of wildland fire similar to current situation 	Similar to Proposed Action	Similar to Proposed Action	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action
Wildlife	<ul style="list-style-type: none"> <i>Construction</i>: 7,025 acres wildlife habitat lost; 9 special status wildlife species impacted <i>Operations</i>: disruption of migratory patterns; death or injury to individuals from striking powerlines, mirrors, arrays, poles or being struck by vehicles; increased predation. 	<i>Construction</i> : 5,548 acres wildlife habitat lost; 9 special status wildlife species impacted on 23% fewer acres than Proposed Action <i>Operations</i> : Similar to Proposed Action	<i>Construction</i> : 4,165 acres wildlife habitat lost; 9 special status wildlife species impacted on 40% fewer acres than Proposed Action <i>Operations</i> : Similar to Proposed Action	Short term: no impact Long term: Similar to Proposed Action	No Impact	Short term: no impact Long term: Similar to Proposed Action

ES.9 Areas of Controversy and Issues for Resolution

Based on input received from agencies, organizations, Native Americans and Tribal Governments, and members of the general public during the scoping for the SA/DEIS and in comments on the SA/DEIS, several areas of controversy related to the BSPP are:

- Opposition to the placement of a large solar project on essentially undisturbed desert land
- Support for locating renewable energy projects in urban or previously-developed areas
- Concern regarding the impacts of this large project on biological and cultural resources
- Concern regarding GHG emissions and climate change
- Concern regarding the range of alternatives considered

Extensive comments were received during the scoping process for the BSPP. The scoping process and public input received during that process are provided in detail in Appendix C, Scoping Report.

ES.10 Organizations and Persons Consulted

In addition to the scoping and SA/DEIS public review processes, the BLM has been consulting and coordinating with public agencies who may be requested to take action on the BSPP. Consultation and coordination is summarized below.

Native American Consultation and Coordination

A key part of a cultural resources analysis under NEPA, CEQA and Section 106 of the National Historic Preservation Act of 1966 (NHPA) is to determine which of the cultural resources that a proposed or alternative action may affect are important or historically significant. In accordance with 36 CFR Part 800.14(b), Programmatic Agreements (PAs) are used for the resolution of adverse effects for complex project situations and when effects on historic properties or resources eligible for or listed in the National Register of Historic Places (National Register) cannot be fully determined prior to approval of an undertaking. The BLM is preparing a PA in consultation with the Advisory Council on Historic Preservation (ACHP), the State Historic Preservation Officer (SHPO), the CEC, interested tribes (including tribal governments as part of government-to-government consultation), and other interested parties. The PA will govern the continued identification and evaluation of historic properties (eligible for the National Register) and historical resources (eligible for the California Register of Historic Places), as well as the resolution of any effects that may result from the BSPP. The consultation with the ACHP, SHPO and Native American Tribal Governments for the BSPP is ongoing.

United States Fish and Wildlife Service

The BLM permit, consultation, and conferencing with the United States Fish and Wildlife Service (USFWS) required for the BSPP is to comply with the Federal Endangered Species Act (ESA) for potential take of the Desert tortoise (*Gopherus agassizii*). Because Federal agency action has been

identified for the BSPP project, ESA Section 7 consultation/conferencing between the BLM and USFWS is required prior to any take authorization for the BSPP from the USFWS. The BLM has submitted a Biological Assessment (BA) for take of this species to the USFWS for the BSPP. The process of consultation with USFWS for the BSPP is ongoing.

California Department of Fish and Game

Consultation with the California Department of Fish and Game (CDFG) is anticipated for possible impacts to waters of the State. It is possible CDFG will determine that a Lake and Streambed Alteration Agreement may be required for the BSPP for the impacts to jurisdictional State waters. The process of consultation with CDFG for the BSPP is ongoing.

ES.11 Public Participation

Scoping activities were conducted by the BLM in compliance with the requirements of NEPA for the BSPP. Many of these scoping activities were conducted jointly with the CEC. The BLM's scoping activities are described in detail in the Final Scoping Report, which is provided in Appendix C. The scoping report documents the Notice of Intent, the scoping meetings, workshops, and the comments received during scoping.

ES.12 Comments and Responses

The BLM and CEC distributed the joint SA/DEIS for the BSPP for public and agency review and comment between March 19, 2010, and June 17, 2010. Ten comment letters were received. PA/FEIS Appendix I includes all of the written comment letters received by the BLM in response to the NOA. Section 5.5, Public Comment Process, provides responses to common and individual comments

**TABLE ES-3
SUMMARY OF IMPACTS ON AIR RESOURCES BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures – See Appendix G	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Emissions of NO_x and VOC from the BSPP could contribute (if left unmitigated) to higher ozone levels in the region.</p> <p>The emissions of NO_x and SO_x from BSPP could contribute (if left unmitigated) to higher PM_{2.5} levels in the region; however, the region is in attainment with PM_{2.5} standards and the low level of NO_x and SO_x emissions from the BSPP would not result in an increase such to cause non-attainment.</p> <p>The BSPP would reduce fossil-fuel fired power plant electrical generation by displacing the need for their operation; however, the exact nature and location of such reductions is not known.</p> <p>Impacts associated with criteria air pollutants. usually are (although not always) cumulative by nature.</p>	<p>AQ-SC1, AQ-SC2, AQ-SC3, AQ-SC4, AQ-SC5, AQ-SC6, AQ-SC8</p> <p>AQ-1, AQ-2, AQ-3, AQ-4, AQ-5, AQ-6, AQ-7, AQ-9, AQ-10, AQ-11, AQ-12, AQ-13, AQ-14, AQ-15, AQ-16, AQ-17, AQ-18, AQ-19, AQ-20, AQ-21, AQ-22, AQ-23, AQ-24, AQ-25, AQ-26, AQ-27, AQ-28, AQ-29, AQ-30, AQ-31, AQ-32, AQ-33, AQ-34, AQ-35, AQ-36, AQ-37, AQ-38, AQ-39, AQ-40, AQ-41, AQ-42, AQ-43, AQ-44, AQ-45, AQ-46, AQ-47, AQ-48, AQ-49, AQ-50, AQ-51, AQ-52, AQ-53, AQ-54, AQ-55, AQ-56, AQ-57, AQ-58, AQ-59, AQ-60, AQ-61, AQ-62, AQ-63, AQ-64</p>	None.
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	<p>Essentially the same as the proposed action.</p> <p>The increase in footprint of 150 acres would have a minimally greater effect than the proposed action.</p>	Same as BSPP	Same as BSPP
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	<p>Peak construction impacts would be the same as the proposed action.</p> <p>Long term construction impacts would be less than the BSPP.</p> <p>Operation impact levels would be reduced relative to the BSPP.</p>	Same as BSPP	Same as BSPP
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No impacts • No impacts 	None	None

TABLE ES-3 (Continued)
SUMMARY OF IMPACTS ON AIR RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures – See Appendix G	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • No adverse impacts from future solar development; however, impacts to air quality could result from the development of other renewable energy projects (i.e., wind) or other uses allowable under Multiple Use Class L. 	<ul style="list-style-type: none"> • None • To be determined (TBD) 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed use. 	<ul style="list-style-type: none"> • None • To be determined (TBD) 	<ul style="list-style-type: none"> • None • To be determined (TBD)

**TABLE ES-4
SUMMARY OF IMPACTS RELATING TO GLOBAL CLIMATE CHANGE BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Construction activities would result in short-term, unavoidable increases in vehicle and equipment emissions, including GHGs; land clearing and vegetation removal clearing of land and complete removal would reduce the ongoing natural carbon uptake by vegetation.</p> <p>Primary fuel (solar energy) is GHG-free; however, emissions from some natural gas, gasoline and diesel fuel use; sulfur hexafluoride emissions could leak from electrical equipment.</p> <p>Decommissioning-related emissions would be similar to, be less than, from construction.</p> <p>Overall, BSPP would benefit climate change conditions by offsetting up to about 2,100,000 MWh/yr of CO₂e-emitting power from existing or conventional fossil fuel power plants.</p> <p>Climate change could result in a suite of additional potential changes that could affect the natural environment, in a manner that is relevant to the BSPP.</p>	None required.	None.
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Essentially the same as the BSPP	Same as BSPP.	Same as BSPP.
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Essentially the same as the BSPP, except that this Alternative would not alter the potential effects of climate change on mitigation lands, drainage and flooding, or water resources availability.	Same as BSPP.	Same as BSPP.

TABLE ES-4 (Continued)
SUMMARY OF IMPACTS RELATING TO GLOBAL CLIMATE CHANGE BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No adverse impacts; benefit from leaving existing carbon sequestration value in place. • Comparable to, greater or less than BSPP, depending on ultimate use consistent with CDCA Plan. 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No adverse impacts; benefit from leaving existing carbon sequestration value in place. • Comparable to, greater or less than BSPP, depending on ultimate use consistent with CDCA Plan 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • No adverse impacts; benefit from leaving existing carbon sequestration value in place. • Comparable to, greater or less than BSPP, depending on ultimate development. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

**TABLE ES-5
SUMMARY OF IMPACTS ON CULTURAL RESOURCES BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>210 known archaeological sites (30 prehistoric and 180 historic), and possibly additional resources yet to be discovered during construction, located within the full extent of the proposed action's below-grade impacts and above-grade impacts would be adversely affected by the BSPP.</p> <p>The integrity of setting and integrity of feeling of the two known built-environment resources located within this area also would be adversely affected by the BSPP.</p> <p>No impacts on cultural resources are anticipated from operation, or closure and decommissioning.</p>	<p>CUL-1, CUL-2, CUL-3, CUL-4, CUL-5, CUL-6, CUL-7, CUL-8, CUL-9, CUL-10, CUL 11, CUL-12, CUL-13, CUL-14, CUL-15, CUL-16, CUL-17, CUL-18, CUL-19</p> <p>BLM-CUL-1: The Applicant shall contribute to a program to document three cultural landscapes described in Chapter 3.4 that will, in part, be impacted by the BSPP. These areas: (1) a Prehistoric Trails Network Cultural Landscape (PTNCL), (2) a Desert Training Center California-Arizona Maneuver Area Cultural Landscape (DTCCL), and (3) a Prehistoric Quarries Archaeological District (PQAD). The Applicant will follow the documentation program by contributing to the preparation of National Register of Historic Places (NRHP) nominations for the PTNCL, DTCCL and PQAD if the BLM determines, after reviewing the documentation, that they are eligible for the NRHP.</p> <p>BLM-CUL-2: If significant or potentially significant cultural resources cannot be avoided, the Applicant will retain a qualified Cultural Resources Specialist to prepare and implement a Historic Property Treatment Plan (HPTP) for the affected resources. The HPTP may include protocols for affected resources including data recovery, research design, and treatment measures. The Principal Investigator for the HPTP program will meet the minimum Principal Investigator qualifications under the Secretary of Interior's Standards for Archaeology.</p> <p>BLM-CUL-3: A designated Cultural Resources Specialist will provide input to construction and operation training programs for employees to enhance awareness regarding the protection of cultural resources. The designated specialist or a qualified cultural resources monitor will be available during construction to inspect and evaluate any finds of potentially significant buried cultural material. The Cultural Resources Specialist will coordinate with the Applicant's construction manager and environmental compliance manager to stop all work in the vicinity of the find until it can be assessed. The Cultural Resources Specialist will also contact the BLM. If the discovery is determined to be not significant through consultation with the BLM, work will be allowed to continue.</p> <p>BLM-CUL-4: All discoveries will be documented on Department of Parks and Recreation forms (Form DPR 523) and filed with the California Historical Resources Information System (CHRIS) Eastern Information Center housed at the University of California, Riverside.</p>	<p>Cultural resources damaged or destroyed by construction of the proposed action, even if subjected to mitigation, would be permanently lost from the archaeological record. This would make the cultural resources unavailable for future study to address future research needs when more advanced investigative techniques and methods of analysis might be available</p>

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS ON CULTURAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
		<p>BLM-CUL-5: If, in consultation with the BLM, a discovery is determined to be significant, a mitigation plan will be prepared and carried out in accordance with the Programmatic Agreement. If the resources cannot be avoided, a data recovery plan will be developed to ensure collection of sufficient information to address archaeological or historical research questions.</p> <p>BLM-CUL-6: A professional technical report will be prepared documenting assessment and data recovery investigations. The report will describe the methods and materials collected and will provide conclusions regarding the results of the investigations. The report will be submitted to the curatorial facility housing the collected archaeological materials, as well as the appropriate California Historical Resources Information System center and BLM Palm Springs-South Coast Field Office.</p> <p>BLM-CUL-7: Cultural material collected as part of an assessment or data recovery mitigation will be curated at a qualified curation facility. Field notes and other pertinent materials will be curated along with the archaeological collection. Curation costs shall be the responsibility of the Applicant.</p> <p>BLM-CUL-8: If human remains are encountered during construction, potentially destructive activities in the vicinity of the find will be stopped. The Cultural Resources Specialist will immediately notify the Principal Investigator, who will contact the BLM. The Applicant will ensure that any such remains are treated in a respectful manner and that applicable state and federal laws are followed. If human remains of Native American origin, associated funerary objects, sacred objects or objects of cultural patrimony are discovered on federal land, the provisions of the Native American Graves Protection and Repatriation Act will be followed.</p> <p>BLM-CUL-9: The Applicant will provide worker environmental awareness program (WEAP) training during construction to assist in worker compliance with cultural resource protection procedures. The training will include photographs of a variety of historic and prehistoric artifacts and will include a description of the specific steps to be taken in the event of an unanticipated discovery of cultural material, including human remains.</p>	

TABLE ES-5 (Continued)
SUMMARY OF IMPACTS ON CULTURAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Cultural resources inventory for the Reconfigured Alternative would include 210 archaeological sites. Impacts would be similar to BSPP, though reduced in proportion to reduction in number of known sites.	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Cultural resources inventory would include 166 archaeological sites. Impacts would be similar to BSPP, though reduced in proportion to reduction in number of known sites.	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • Similar to BSPP, although varying in proportion to amount of grading, maintenance or other earth disturbance required. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

**TABLE ES-6
SUMMARY OF IMPACTS ON ENVIRONMENTAL JUSTICE BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	No direct, indirect or cumulative impact, either short-term or long-term, on Environmental Justice.	None	None
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Same as BSPP	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	Same as BSPP	Same as BSPP	Same as BSPP

TABLE ES-7
SUMMARY OF IMPACTS ON LANDS AND REALTY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	Minimal impacts to the designated corridors, slight constraint to future use To I-10 from overhead and underground crossings	Federal Highway Administration (FHA), California Department of Transportation (CalTrans), industry standards (SOPs) and best management practices (BMPs)	Land not being available for other uses during the life of the BSPP. After decommissioning, the land would be available for other future uses
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No impacts • Could be similar to proposed action as another application for a different solar facility or other use including wind power could be filed. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed future use. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-7 (Continued)
SUMMARY OF IMPACTS ON LANDS AND REALTY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed use. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-8
SUMMARY OF IMPACTS ON MINERAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	No direct, indirect or cumulative impact, either short-term or long-term, on Mineral Resources.	None	None
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Same as BSPP	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	Same as BSPP	Same as BSPP	Same as BSPP

**TABLE ES-9
SUMMARY OF IMPACTS ON MULTIPLE USE CLASSES BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> BSPP CDCA Plan Amendment 	<ul style="list-style-type: none"> No changes in the MUC classification. Restrict multiple use opportunities for life of project. Multiple use opportunities could be available upon decommissioning 	None	None
Reconfigured Alternative <ul style="list-style-type: none"> 1,000 MW (same as BSPP) 7,175 acres disturbed (150 acres more than the BSPP) BLM amends CDCA Plan for Reconfigured Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> 750 MW (75 percent of MW of the BSPP); 4,750 acres disturbed (1,200 acres less than the BSPP) BLM amends CDCA Plan for Reduced Acreage Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> BLM does not approve the ROW Grant for the BSPP BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> No impacts Could be similar to proposed action as another application for a different solar facility or other use including wind power could be filed. 	<ul style="list-style-type: none"> None TBD 	<ul style="list-style-type: none"> None TBD
No Action Alternative B <ul style="list-style-type: none"> BLM does not authorize the ROW grant for the BSPP; BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> No impacts Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed future use. 	<ul style="list-style-type: none"> None TBD 	<ul style="list-style-type: none"> None TBD
No Action Alternative C <ul style="list-style-type: none"> BLM does not authorize the ROW grant for the BSPP; BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> No impacts Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed use. 	<ul style="list-style-type: none"> None TBD 	<ul style="list-style-type: none"> None TBD

**TABLE ES-10
SUMMARY OF IMPACTS ON NOISE BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Noise impacts associated with the proposed action could be created by short-term construction activities, including “high pressure steam blow” and construction equipment typical of industrial projects.</p> <p>Operational noise level at receptor LT would be 40 dBA Leq, which is acceptable under the Riverside County Code</p> <p>Short-term closure and decommissioning noise levels would be less than expected for construction, since no high pressure steam blows would be required, but in other respects are anticipated to be comparable to construction noise levels.</p> <p>No cumulative noise impact.</p>	<p>NOISE-1, NOISE-2, NOISE-3, NOISE-4, NOISE-5, NOISE-6, NOISE-7</p>	<p>Short-term, construction-related exceedance of Riverside County noise regulations: The exceedance would be an increase of 16 dBA for the 69 month construction period.</p>
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	<p>Due to an incrementally longer construction period, the same types of construction activity, and substantially similar operation and maintenance-related and closure and decommission-related requirements as the BSPP, noise would be slightly greater than, but substantially similar to, the BSPP.</p>	<p>Same as BSPP</p>	<p>Comparable to BSPP</p>
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	<p>Reduced total construction-, operation- and decommissioning-related activity (and therefore noise) on the site by roughly 25 percent; however, peak construction impacts could be same as the proposed action, since construction activity levels would likely be similar.</p> <p>Operations-related noise levels would be reduced, since only three of the four proposed units would be operated and maintained.</p> <p>Given the reduced amount of equipment to dismantle and reduction in acreage to be restored, closure and decommission-relating impacts also would be reduced relative to the BSPP.</p>	<p>Same as BSPP</p>	<p>Comparable, although slightly reduced, relative to BSPP</p>
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None

TABLE ES-10 (Continued)
SUMMARY OF IMPACTS ON NOISE BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate development or use of the site. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate use or development of the site. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-11
SUMMARY OF IMPACTS ON PALEONTOLOGICAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Construction could damage or destroy paleontological resources, fossils and potentially high-sensitivity materials.</p> <p>As the value of paleontological resources is predicated on their discovery within a specific geological host unit, construction of the BSPP could result in a net gain to the science of paleontology by allowing fossils that would not otherwise have been found to be recovered, identified, studied, and preserved.</p> <p>Operation, future decommissioning and closure would not adversely impact paleontological resources because the ground disturbed during these activities would already have been disturbed.</p> <p>A cumulative net gain to the science of paleontology could result by allowing fossils that would not otherwise have been found to be recovered, identified, studied, and preserved. Cumulative impacts would be neutral (no fossils encountered) or positive (fossils encountered, preserved and identified).</p>	PAL-1, PAL-2, PAL-3, PAL-4, PAL-5, PAL-6, PAL-7	Mitigation measures could not avoid or reduce fossil disturbance associated with drilled shaft foundations; however, the volume of disturbance and probability of encountering fossil resources would be low in comparison to the grading and excavation activities.
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Same as BSPP	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Same as BSPP	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No adverse impacts; no gain to the science of paleontology. • None 	None	None

TABLE ES-11 (Continued)
SUMMARY OF IMPACTS ON PALEONTOLOGICAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No adverse impacts; no gain to the science of paleontology. • TBD, depending on ultimate use or development of the site. Resulting impacts could be comparable to, greater or less than the BSPP. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • No adverse impacts; no gain to the science of paleontology. • TBD, depending on ultimate use or development of the site. Resulting impacts could be comparable to, greater or less than the BSPP. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-12
SUMMARY OF IMPACTS ON PUBLIC HEALTH AND SAFETY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p><i>Hazardous Waste</i></p> <p>Limited risk of spills or other releases</p> <p>Limited risk of fire and/or possible explosion risk due to natural gas usage</p> <p>Marginal risk of Therminol migration or fire</p> <p>No long or short term adverse health impacts expected (i.e., cancer)</p> <p><i>Non-hazardous Waste</i></p> <p>Generation of solid waste, liquid waste</p> <p><i>Unexploded Ordnance</i></p> <p>Could be present posing a safety risk to the workers</p> <p><i>Abandoned Mined Lands</i></p> <p>Two on site, one near site posing a safety risk to the workers</p> <p><i>Transmission Line Safety and Nuisance</i></p> <p>Aviation safety</p> <p>Hazardous and nuisance shocks</p> <p>Electric and magnetic field (EMF) exposure</p> <p><i>Traffic and Transportation Safety</i></p> <p>Aviation safety from upward plumes from cooling systems; glint/glare, interference with communication systems, and attraction of birds to evaporation ponds</p> <p><i>Roadway Safety</i></p> <p>Transport of oversized equipment and hazardous materials</p> <p><i>Worker Safety and Fire Protection</i></p> <p>Exposure o loud noises, moving equipment, hazardous materials, dust, trenches, and confined space entry and egress</p>	<p><i>Hazardous</i></p> <p>Engineering and administrative controls part of proposed action</p> <p>Implementation of National Fire Protection Association (NFPA) code 85A requires both the use of double-block and bleed valves for gas shut off and automated combustion controls; natural gas pipelines must be designed to meet the appropriate level of California Public Utilities Commission (CPUC) General Order 112 standards and 49 CFR 192 standards; compliance with constructed and operated in accordance with the Federal Department of Transportation (DOT) regulations; applicant proposed safety management plan</p> <p>Isolation valves would be placed throughout the system designed to automatically block off sections if a loss of pressure is detected HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, HAZ-6, Public Health-1, SOIL&WATER-18</p> <p><i>Non-hazardous</i></p> <p>Recycling and appropriate disposal at Class III landfill for solid waste, appropriate LORS, transport , and treatment. Development of Construction Waster Management Plan WASTE-1, WASTE-2, WASTE-3, WASTE-4, WASTE-5, WASTE-6, WASTE-7, WASTE-8, WASTE-9, WASTE-10</p> <p><i>Unexploded Ordnance</i></p> <p>BLM-PHS-1</p> <p><i>Abandoned Mined Lands</i></p> <p>BLM-PHS-2</p> <p><i>Transmission Line Safety and Nuisance</i></p> <p>Compliance with FAA safety analysis recommendations</p> <p>Grounding measures</p>	<p><i>Hazardous Waste</i></p> <p>Accidental release could occur and could cause an airborne or waterborne risk to the human environment</p> <p><i>Unexploded Ordnance</i></p> <p>Risk of accidental or unintentional detonation of UXO</p>

TABLE ES-12 (Continued)
SUMMARY OF IMPACTS ON PUBLIC HEALTH AND SAFETY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
	<p><i>Geologic Hazards</i></p> <p>Groundshaking</p> <p>Secondary Earthquake Hazards; Hydrocompaction; and Corrosive Soils</p> <p><i>Erosion</i></p> <p>Exposure from rainfall and high winds</p> <p><i>Site Security</i></p> <p>Malicious mischief, vandalism, or domestic/foreign terrorist attacks to electrical infrastructure from</p>	<p>TLSN-1, TLSN-2, TLSN-3, TLSN-4, TLSN-5</p> <p><i>Traffic and Transportation Safety</i></p> <p>TRANS-6, TRANS-7, TRANS-8, TRANS-9, TRANS-10, TRANS-11</p> <p><i>Worker Safety and Fire Protection</i></p> <p>Development of a Construction Safety and Health Program and Operations and Maintenance Safety and Health Program; develop and implement a fire prevention program and fund capital improvements and staffing for the RCFD</p> <p>WORKER SAFETY-1, WORKER SAFETY-2, WORKER SAFETY-3, WORKER SAFETY-4, WORKER SAFETY-5, WORKER SAFETY-6, WORKER SAFETY-7, WORKER SAFETY-8, WORKER SAFETY-9</p> <p><i>Geologic Hazards</i></p> <p>Structural designs consistent with the California Building Code</p> <p>Implementation of recommendations in geotechnical report</p> <p><i>Erosion</i></p> <p>Utilize Construction Water Quality Best Management Practices (BMPs) and implement SWPP</p> <p>CIVIL-1, CIVIL-2, CIVIL-3, CIVIL-4, STRUC-1, GEO-1, SOIL&WATER-1</p> <p><i>Site Security</i></p> <p>HAZ-5, HAZ-6</p>	
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP

TABLE ES-12 (Continued)
SUMMARY OF IMPACTS ON PUBLIC HEALTH AND SAFETY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Similar to the proposed action.	Same as BSPP	Same as BSPP
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No impacts • Could be similar to proposed action as another application for a different solar facility or other use including wind power could be filed. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed future use. 	<ul style="list-style-type: none"> • None • BD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed use. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-13
SUMMARY OF IMPACTS ON RECREATION BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p><i>On-Site</i></p> <p>Could disrupt dispersed recreational activities on site which would be available upon decommissioning</p> <p><i>Off-Site</i></p> <p>Degradation of nearby lands by displaced recreational users migrating to other areas.</p> <p>Increased use of LTVAs</p> <p>Beneficial impacts upon decommissioning</p>	See Section 4.12, <i>Impacts on Recreation</i> . BLM-REC-1, BLM-REC-2, BLM-REC-3, BLM-REC-4, BLM-REC-5	Unavoidable adverse impacts on recreation resources by permanent removal of vegetation, landforms, and other nature features of the characteristic landscape for the life of the BSPP or until decommissioning and restoration occurs.
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Same as the proposed action.	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No impacts • Could be similar to proposed action as another application for a different solar facility or other use including wind power could be filed. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed future use. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-13 (Continued)
SUMMARY OF IMPACTS ON RECREATION BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative C</p> <ul style="list-style-type: none">• BLM does not authorize the ROW grant for the BSPP;• BLM amends the CDCA Plan to make the project site available for any type of solar energy development.	<ul style="list-style-type: none">• No impacts• Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed use.	<ul style="list-style-type: none">• None• TBD	<ul style="list-style-type: none">• None• TBD

**TABLE ES-14
SUMMARY OF IMPACTS ON ECONOMICS BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Considerable direct construction-related economic benefits for workers and local businesses providing materials and services for construction.</p> <p>Considerable indirect and induced economic benefits for the local and eastern Riverside County economies from subsequent spending of workers' and construction businesses' income within the local and regional economy. Most likely would benefit food, retail, lodging, real estate, and medical related businesses.</p> <p>Positive, but short-term, contribution toward supporting local business and maintaining the economic vitality of the City of Blythe and neighboring communities.</p> <p>BSPP-related in-migration could affect the social character of the local study area; however, few people are expected to relocate to the area as a result of the BSPP.</p> <p>Operations are expected to directly employ 221 full-time employees, which would create indirect and induced secondary employment in the region. Workers' wages and salaries would have long-term positive impact.</p> <p>Annual expenditures of the BSPP were assumed to be \$9.6 million for materials, equipment, and supplies; and \$9.4 million in payroll annually.</p> <p>Direct economic impact associated with discontinuation of the solar energy generation site would result in job losses for the operations workforce.</p> <p>Cumulative labor demand would likely range between 5,000 FTE minimum 11,360 FTE maximum and represent more than half the region's currently forecasted future skilled construction labor force.</p> <p>Given estimated availability of lodging and possible rental housing, it is expected that there would be adequate and suitable housing to meet anticipated temporary housing demand. Therefore, no major adverse social or economic impacts would be expected to result.</p>	None	None

TABLE ES-14 (Continued)
SUMMARY OF IMPACTS ON ECONOMICS BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Comparable to the BSPP	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Construction spending and employment for the Reduced Acreage Alternative would be expected to be lower than for the BSPP; social and economic impacts would be similarly reduced.	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • None • The social and economic impacts associated with the proposed action would likely only be delayed by selecting No Action Alternative A, since this region of the United States has extremely positive characteristics for solar power generation. 	<ul style="list-style-type: none"> • None • Comparable to BSPP, but later in time 	<ul style="list-style-type: none"> • None • Comparable to BSPP but later in time
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate use or development of the site. Impacts of other (non-solar) renewable energy development could be comparable to the BSPP. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate use or development of the site. Impacts of other solar energy project could be comparable to the BSPP. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

**TABLE ES-15
SUMMARY OF IMPACTS ON SOILS RESOURCES BY ALTERNATIVE**

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Soils on the BSPP site have a low to very high hazard for wind erosion: if desert pavement is disturbed, underlying soils are subject to high levels of wind erosion. Soils on the eastern third of the site have the highest erosion rates for undisturbed, disturbed, and operational conditions.</p> <p>Water erosion considered negligible except for wash areas in the central portion of the site where soils are potentially more erosive due to higher silt content. Erosion rates would increase during operations, and then revert to its undisturbed erosion rate.</p> <p>Combined vegetation removal anticipated as a result of the numerous proposed utility-scale renewable energy projects, including the BSPP, could expose soils to higher wind-borne erosion rates than the area otherwise would be exposed to. This also could exacerbate runoff rates, especially during high intensity, short duration rainfall events</p>	<p>SOIL&WATER-1, SOIL&WATER 10, SOIL&WATER-11, SOIL&WATER-14, SOIL&WATER-15</p>	<p>Implementation of mitigation measures would not preclude all loss of soils due to erosion; some residual impact would remain</p>
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	<p>Essentially the same as the BSPP: 150 acre increase has only a minor effect on soils impacts.</p>	<p>Same as BSPP</p>	<p>Comparable to, perhaps slightly more than, the BSPP</p>
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	<p>Peak construction impacts would be the same as the proposed action since construction activity levels are estimated to be similar. Long term construction impacts would be less since the construction period would be reduced. Operation impact levels would be reduced since only three of the four proposed units would be built and operated.</p>	<p>Same as BSPP</p>	<p>Comparable to, perhaps slightly less than the BSPP</p>
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • None • TBD, depending on use or development of the site consistent with the CDCA Plan 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-15 (Continued)
SUMMARY OF IMPACTS ON SOILS RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate development or use of the site 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending ultimate development or use of the site 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-16
SUMMARY OF IMPACTS ON SPECIAL DESIGNATIONS BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	No Impacts	None	None
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	No impacts	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	No impacts	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	No impacts	None	None
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	No impacts	None	None
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	No impacts	None	None

TABLE ES-17
SUMMARY OF IMPACTS ON TRANSPORTATION AND PUBLIC ACCESS – OFF HIGHWAY VEHICLE USE BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<i>OHV Routes</i> Impact approximately 7 miles of OHV (i.e., one major route and two small spurs) Temporary disruption to the user of OHV route along linear facilities Closure of McCoy Wash to OHV use <i>Transportation</i> Increased traffic on local roadways Transport of equipment that exceed roadway load or size limits	Applicant-recommended staggered travel times for construction workers Transport large equipment complaint with CalTrans See Section 4.16 Impacts on Transportation and Public Access - Off Highway Vehicle Resources. BLM-OHV-1 and BLM-OHV-2. TRANS-1,4 TRANS-2, TRANS-3, TRANS-4, TRANS-5	Closure of McCoy wash to OHV use but would become available upon decommissioning. None related to Transportation
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	<i>OHV Routes</i> Greater than proposed action. Impact approximately 8.5 miles of OHV Other impacts similar to proposed action <i>Transportation</i> Similar to proposed action	Same as BSPP	Same as BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	<i>OHV Routes</i> Less than proposed action. Impact approximately 1 mile of OHV Other impacts similar to proposed action <i>Transportation</i> Similar to proposed action	Same as BSPP	Same as BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • No impacts • Could be similar to proposed action as another application for a different solar facility or other use including wind power could be filed. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

⁴ Energy Commission staff note that with the implementation of TRANS-1, parking arrangements may be modified. The BLM concurs with this.

TABLE ES-17 (Continued)
SUMMARY OF IMPACTS ON TRANSPORTATION AND PUBLIC ACCESS – OFF HIGHWAY VEHICLE USE BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed future use. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • No impacts • Impacts could result from, CDCA Plan amendment and would be analyzed as a part of the related permitting process. Impacts could be comparable to, greater or less than those of the proposed action, depending on the nature and intensity of the proposed use. 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-18
SUMMARY OF IMPACTS ON VEGETATION RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Construction, operation and decommissioning of the BSPP would have direct and indirect impacts on:</p> <ul style="list-style-type: none"> • 592.4 acres of ephemeral drainages • 58.2 acres of Stabilized and partially Stabilized Dunes • 6,364.6 acres of Sonoran creosote bush scrub (including disturbed) • 4.4 acres of agricultural land • 4.9 acres of developed land • 7,024.5 acres of special status plants <p>BSPP would contribute to cumulative impacts to total loss of 11,871 acres of Sonoran creosote scrub and 2,971 acres of desert dry wash woodland.</p>	<p>Based on a desert dry wash woodland mitigation ratio of 3:1, 525 acres</p> <p>Based on an un-vegetated, ephemeral dry wash mitigation ratio of 1:1, 8 acres</p> <p>Based on a vegetated ephemeral swale (big galleta grass association) mitigation ratio of 1.5:1, 550 acres</p> <p>The following mitigation measures also apply:</p> <p>BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-14, BIO-19, BIO-22, BIO-23, BIO-28</p> <p>BLM BIO-7a: The Applicant shall ensure that monitoring accomplished under BIO-7 and other mitigating measures use available climatological data when analyzing project effects or resource trends.</p>	<p>Under the technology proposed in the three alternatives, the Proposed Action, Reconfigured Alternative, and Reduced Acreage Alternative, natural vegetation communities and individuals and local populations of special status plants not otherwise avoided under proposed mitigating measures would be lost from the BSPP sites, totaling 7,025 acres, 5,548 acres, and 4,165 acres, respectively. Despite mitigating measures, the chance of invasion and spread of weeds and the chance of human-caused wildfires would persist to the areas surrounding the BSPP, threatening the surrounding vegetation and special status plant species.</p>
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	<p>Construction, operation and decommissioning of this Alternative would have direct and indirect impacts on:</p> <ul style="list-style-type: none"> • 413.3 acres of ephemeral drainages • 37 acres of Stabilized and partially Stabilized Dunes • 5,134.7 acres of Sonoran creosote bush scrub (including disturbed) • 0 acres of agricultural land • 0 acres of developed land • 25% fewer acres than BSPP 	<p>Desert dry wash woodland: 555 acres</p> <p>Unvegetated, ephemeral dry wash: 4 acres</p> <p>Vegetated ephemeral swale (big galleta grass association): 360 acres</p>	<p>Same as BSPP</p>
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	<p>Construction, operation and decommissioning of this Alternative would have direct and indirect impacts on:</p> <ul style="list-style-type: none"> • 245 acres of ephemeral drainages • 37 acres of Stabilized and partially Stabilized Dunes • 3,920 acres of Sonoran creosote bush scrub (including disturbed) • 0 acres of agricultural land • 0 acres of developed land • 25% fewer acres than Reconfigured Alternative 	<p>Desert dry wash woodland: 93 acres</p> <p>Unvegetated, ephemeral dry wash: 3 acres</p> <p>Vegetated ephemeral swale (big galleta grass association): 317 acres</p>	<p>Same as BSPP</p>

TABLE ES-18 (Continued)
SUMMARY OF IMPACTS ON VEGETATION RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None

TABLE ES-19
SUMMARY OF IMPACTS ON VISUAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Proposed Action <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Construction activities would result in a high degree of visual contrast within the landscape, generate of large quantities of airborne dust and include nighttime lighting.</p> <p>Operations-phase impacts would relate to light and glare, lighting, glint and glare from the mirrors, and glare from power block buildings, administrative buildings, and transmission lines; these impacts could affect users of specially-designated lands.</p> <p>Short-term decommissioning impacts would be comparable to construction; long-term decommissioning related impacts would be beneficial.</p> <p>Cumulatively, synergistic visual impacts for travelers along I-10, as well as visual impacts to dispersed recreational users in the surrounding mountains.</p>	<p>VIS-1, VIS-2, VIS-3, VIS-4, TRAN-9, AQ-SC3</p> <p>BLM-VIS-1: The project owner shall paint power blocks structures and other vertical construction shadow gray as shown on the BLM Color Chart. The backs of solar troughs shall also be color treated to minimize color contrasts.</p>	<p>Visual impacts to surrounding viewer groups (all KOPs) from sunlight reflected off of the parabolic mirrors (glare).</p> <p>Visual impacts to dispersed recreational users in the McCoy, Big Maria, and Little Maria Mountains due to the size and scale of the BSPP. Non-conformance with VRM Class II objectives from KOP No. 8.</p> <p>Unavoidable and adverse cumulative impacts for travelers along I-10 and dispersed recreational users in the McCoy, Big Maria, and Little Maria Mountains and wilderness.</p>
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Comparable to the BSPP	Comparable to the BSPP	Comparable to the BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Comparable to the BSPP	Comparable to the BSPP	Comparable to the BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None

TABLE ES-19 (Continued)
SUMMARY OF IMPACTS ON VISUAL RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None 	<ul style="list-style-type: none"> • None • None
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate use or development of the site 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-20
SUMMARY OF IMPACTS ON WATER RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Soil erosion: See above.</p> <p>Groundwater:</p> <ul style="list-style-type: none"> • Extraction during construction (about 820 ac-ft/yr) and operation (600 ac-ft/yr) would exceed the subsurface inflow from these sources and could thus place the basin into overdraft conditions if not balanced via increased subsurface inflow from the Colorado River. Total groundwater expected to be extracted from the PVMGB by the BSPP from construction through operation is approximately 22,100 ac-ft. The PVMGB has approximately 5,000,000 acre-feet in storage. The total amount extracted equates to approximately 0.44 percent of the available water in storage. This impact to the basin groundwater storage is minor. • Groundwater level declines of five feet or more would be located at a distance of less than 1,100 feet from the proposed production well. The closest existing well is located a distance of 9,000 feet from this well. • Potential for groundwater quality impacts appears low. <p>Surface Water Hydrology: BSPP would alter natural stormwater drainages and use BMPs to reduce potentially significant impacts related to concentrated drainage and ensuing soil erosion and sediment transport offsite.</p> <p>Surface Water Quality: A Drainage Erosion and Sedimentation Control Plan would be required prior to onsite operations and would reduce the potential for increased sediment loads. Potential spills would be managed through hazardous materials management.</p>	<p>WATER-1, WATER-2, WATER-3, WATER-4, WATER-5, WATER-6, WATER-7, WATER-8, WATER-9, WATER-10, WATER-11, WATER-12, WATER-13, WATER-14, WATER-15, WATER-16, and WATER-17</p> <p>BLM-WATER-18: The proposed evaporation ponds shall be sized so as to maintain no less than one foot of freeboard during storm conditions. Specifically, the ponds shall be sized to accommodate operational discharges plus a 25-year storm event, with no less than one foot of freeboard.</p>	<p>As discussed previously, implementation of the BSPP and associated permit requirements and mitigation strategies would result in minor adverse impacts for the following categories: (1) surface water quality: minor reduction in water quality during construction, operation, and decommissioning; (2) groundwater quality: minor reduction in groundwater quality during construction, operation, and decommissioning; (3) groundwater level: relatively minor degree of reduction in water levels is expected during construction and operation; (4) drainage and flooding: minor changes during construction, operation, and decommissioning.</p>
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	<p>Soil Erosion: Construction activities would disturb site soils at the site and along the linear facilities route(s). It is at the time of this disturbance that there would be the highest potential for erosion, as well as associated effects including soil loss and increased sediment yields downstream from disturbed areas.</p> <p>Groundwater Basin Balance: Similar to the BSPP</p> <p>Groundwater Levels: Similar to the BSPP</p> <p>Groundwater Quality: Similar to the BSPP</p>	<p>Same as BSPP</p>	<p>Comparable to the BSPP</p>

TABLE ES-20 (Continued)
SUMMARY OF IMPACTS ON WATER RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
	<p>Surface Water Hydrology: Similar to the BSPP, except that flow from a significantly larger watershed would need to be collected and conveyed around the Reconfigured Alternative site. All existing washes within the smaller developed portion of the site would be eliminated by onsite grading and replaced with a system of engineered swales and channels.</p> <p>Surface Water Quality: Potentially significant water quality impacts could occur during operations if contaminated or hazardous materials used during operations were to contact stormwater and drain offsite. This Alternative would alter a larger number of natural stormwater drainages than the BSPP, and would impact surface water quality accordingly.</p>		
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> 750 MW (75 percent of MW of the BSPP); 4,750 acres disturbed (1,200 acres less than the BSPP) BLM amends CDCA Plan for Reduced Acreage Alternative 	<p>Soil Erosion: Similar to but somewhat less than those associated with the BSPP.</p> <p>Groundwater Basin Balance: Groundwater basin storage in the vicinity of the BSPP site could be impacted as a result of the construction and operational water use. The potential impact would be approximately 25 percent less than in the proposed action, since this alternative would use approximately 25 percent less water than the proposed action.</p> <p>Groundwater Levels: Impact expected to be about 25 percent less than the BSPP</p> <p>Groundwater Quality: Similar to, though somewhat less than, the BSPP</p> <p>Surface Water Hydrology: Similar to the proposed BSPP, except proportionately smaller in scale.</p> <p>Surface Water Quality: Similar to the BSPP</p>	Same as BSPP	Comparable, but somewhat less than the BSPP
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> BLM does not approve the ROW Grant for the BSPP BLM does not amend the CDCA Plan 	<ul style="list-style-type: none"> None TBD, depending on ultimate use or development of the site 	<ul style="list-style-type: none"> None TBD 	<ul style="list-style-type: none"> None TBD

TABLE ES-20 (Continued)
SUMMARY OF IMPACTS ON WATER RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate use or development of the site 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	<ul style="list-style-type: none"> • None • TBD, depending on ultimate use or development of the site 	<ul style="list-style-type: none"> • None • TBD 	<ul style="list-style-type: none"> • None • TBD

TABLE ES-21
SUMMARY OF IMPACTS ON WILDLAND FIRE ECOLOGY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> • BSPP • CDCA Plan Amendment 	<p>Direct impacts of wildfire would include mortality of plants and wildlife and loss of forage and cover. Annual plants and burrowing wildlife would be less affected in the short term.</p> <p>Indirect impacts would result in changes to the vegetation communities and the wildlife supported by the communities.</p> <p>The spread of invasive plants, especially annual grasses, creates an increased potential for wildfires. Surface disturbing activities and vehicle use that promotes the introduction of invasive plants would increase the likelihood of larger fires in the future.</p> <p>Daily vehicle use associated with construction, operation and decommissioning of the BSPP could increase the risk of ignition.</p> <p>Climate change would result in a small but general increase in temperature, and could also result in an increase in the frequency of extreme weather events that could generate wildfires, such as increased frequency of drought and heat waves, during operation and maintenance of the BSPP.</p> <p>Wildfire suppression efforts would result in reduced particulate (PM10) production and visibility impairment from smoke and wild-blown dust. Short term impacts from fire suppression potentially would increase levels of particulate from surface disturbance of fire fighting equipment and operations. Fire fighting efforts would use minimal ground distributing techniques such as aerial fire suppression and ground crews with hand tools. Successful fire suppression efforts minimize the number of acres burned, and result in less vegetative loss, and thereby, less wind erosion of particulate matter.</p> <p>Cumulatively, increased human presence and disturbance caused by construction, operation and overall development could advance the rate of invasion by non-native vegetation and, thereby, contribute to fire fuel-loading that would burn with higher flames and hotter temperatures.</p>	<p>WORKER SAFETY-7</p> <p>Mitigation Measures BIO-6, 7, 8, 14, which require a weed management plan; and BIO-19, and 23, which reduce exotic weeds, would reduce the incidence and size of wildfires and would tend to maintain the natural vegetation communities.</p>	<p>Fires have not been common or large in the NECO planning area in the past, but could increase as the invasive, non-native grass cover increases.</p> <p>Despite the Fire and Weed Control Programs that would be incorporated into any of the Action alternatives, the changes in vehicle use accessing the area for construction, operation, and maintenance and recreational vehicle access would increase the likelihood of wildfires in the BSPP Area to a slight, but unknown degree.</p>

TABLE ES-21 (Continued)
SUMMARY OF IMPACTS ON WILDLAND FIRE ECOLOGY BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
Reconfigured Alternative <ul style="list-style-type: none"> • 1,000 MW (same as BSPP) • 7,175 acres disturbed (150 acres more than the BSPP) • BLM amends CDCA Plan for Reconfigured Alternative 	Comparable to the BSPP	Same as BSPP	Comparable to the BSPP
Reduced Acreage Alternative <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	Comparable to the BSPP	Same as BSPP	Comparable to the BSPP
No Action Alternative A: <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	Vehicle access to and through the BSPP Area would be similar and, therefore, fire incidence and size would be similar to the BSPP, because future solar development would not necessarily be precluded.	None	TBD
No Action Alternative B <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	Potentially greater recreation-related vehicle access could occur in the long term as solar energy development projects would be precluded from the BSPP area. Such vehicle access in the long term would increase along present trends and increase the incidence of vehicle-related wildfires.	None	TBD
No Action Alternative C <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	Vehicle access to and through the BSPP Area would be similar and, therefore, fire incidence and size would be similar to the BSPP, because future solar development would not necessarily be precluded.	None	TBD

TABLE ES-22
SUMMARY OF IMPACTS ON WILDLIFE RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Proposed Action</p> <ul style="list-style-type: none"> BSPP CDCA Plan Amendment 	<p>BSPP would eliminate all habitat for wildlife within the BSPP site.</p> <p>BSPP would also directly and indirectly affect an extensive network of desert washes in the disturbance area, and would alter the hydrology of the area by re-routing these waterways through five engineered channels.</p> <p>Habitat types impacted by the proposed BSPP include upland habitat types such as Sonoran creosote bush scrub and stabilized and partially stabilized sand dunes, as well as desert dry wash woodlands and vegetated ephemeral swales.</p> <p>The BSPP would result in loss of habitat for desert tortoise, of spring foraging habitat for Nelson's bighorn sheep, and would degrade and fragment adjacent wildlife communities, decreasing regional connectivity and dispersal of resident wildlife.</p> <p>The BSPP is likely to promote the spread of invasive non-native plants, and subsidize desert tortoise predators such as common raven, coyotes, and feral dogs.</p> <p>Construction, operations, or maintenance activities could result in some death, harm, harassment, removal, or capture of wildlife, including eggs and nests which would constitute unavoidable loss of individual animals.</p>	<p>BIO-1, BIO-2, BIO-3, BIO-4, BIO-5, BIO-6, BIO-7, BIO-8, BIO-9, BIO-10, BIO-11,</p> <p>BIO-12, BIO-13, BIO-15, BIO-16, BIO-17, BIO-18, BIO-20, BIO-21, BIO-23, BIO-24, BIO-25, BIO-26, BIO-27, BIO-28</p> <p>BLM BIO-7a: The Applicant shall ensure that monitoring accomplished under BIO-7 and other mitigating measures use available climatological data when analyzing project effects or resource trends.</p> <p>BLM BIO-21: The Project owner shall be responsible for providing adequate funding to install a water source, complete with an environmental assessment analyzing the impacts of the guzzler installation and operation, monitor and manage the water source for the life of the project. \$100,000 is required to fulfill the terms of this condition; the excess shall be refunded to the Project owner. The Project owner shall provide financial assurances to the CDFG with copies of the document(s) to BLM, to guarantee that an adequate level of funding is available to implement the mitigation measures described in this condition. Security shall be in the amount of the initial estimate of \$100,000.</p>	<p>Routes of wildlife movement along washes would be cut off and wildlife movement from the mountainous southwest to the northeast would be severely curtailed due to perimeter fencing and the impacted washes. Wildlife trailing along the fence to find a suitable route would be subject to increased vulnerability to predation. Gaps in fencing, if not maintained to standards could trap desert tortoises, badgers, kit foxes, burro deer, or Nelson's bighorn sheep.</p> <p>In addition to direct loss of habitat, the BSPP would fragment and degrade adjacent native wildlife communities, and could promote the spread of invasive non-native plants and increase the presence of desert tortoise predators such as ravens. These habitats provide foraging, cover, and/or breeding habitat for a variety of resident wildlife, including the state and federally-listed desert tortoise, American badger, desert kit fox, golden eagle, migratory birds, burrowing owl, Nelson's bighorn sheep, burro deer, and Mojave fringe-toed lizard.</p> <p>Under the technology proposed in the three BSPP alternatives, the Proposed Action, Reconfigured Alternative, and Reduced Acreage Alternative, the native wildlife communities would be lost, totaling 7,027 acres, 5,439 acres, and 4,165 acres respectively.</p>
<p>Reconfigured Alternative</p> <ul style="list-style-type: none"> 1,000 MW (same as BSPP) 7,175 acres disturbed (150 acres more than the BSPP) BLM amends CDCA Plan for Reconfigured Alternative 	<p>About 23 percent less impact than BSPP on desert tortoise, migratory birds, golden eagle, burrowing owl, and desert kit fox and American badger.</p> <p>Slight impact to future use as Nelson's bighorn sheep migration corridor in future; loss of 644 acres of spring foraging habitat.</p> <p>Otherwise similar to BSPP.</p>	<p>Same as BSPP</p>	<p>Comparable to, and perhaps slightly less than, the BSPP</p>

TABLE ES-22 (Continued)
SUMMARY OF IMPACTS ON WILDLIFE RESOURCES BY ALTERNATIVE

Alternatives	Impacts	Mitigation Measures, Project Design Features, and Other Measures	Unavoidable Adverse Impacts After Mitigation
<p>Reduced Acreage Alternative</p> <ul style="list-style-type: none"> • 750 MW (75 percent of MW of the BSPP); • 4,750 acres disturbed (1,200 acres less than the BSPP) • BLM amends CDCA Plan for Reduced Acreage Alternative 	<p>About 40 percent less than BSPP for desert tortoise, migratory birds, golden eagle, burrowing owl, kit fox and American badger.</p> <p>Slight impact to future use as Nelson's bighorn sheep migration corridor; loss of 382 acres of spring foraging habitat.</p> <p>About 50 percent less impact than BSPP on ephemeral drainages.</p> <p>Otherwise similar to BSPP</p>	Same as BSPP	Comparable to, and perhaps slightly less than, the BSPP
<p>No Action Alternative A:</p> <ul style="list-style-type: none"> • BLM does not approve the ROW Grant for the BSPP • BLM does not amend the CDCA Plan 	None	None	None
<p>No Action Alternative B</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site unavailable for any type of solar energy development. 	None	None	None
<p>No Action Alternative C</p> <ul style="list-style-type: none"> • BLM does not authorize the ROW grant for the BSPP; • BLM amends the CDCA Plan to make the project site available for any type of solar energy development. 	None	None	None